

REMARKS

Claims 85, 97 and 104 are amended. Claims 85-108 and 118 are pending in the application.

Claims 104-108 and 118 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Japan Patent Abstract 56-071955 ('955). The Examiner is reminded by direction to MPEP § 2131 that a proper anticipation rejection requires each and every element of a claim to be disclosed in a single prior art reference. Claims 104-108 and 118 are allowable over '955 since the reference does not disclose each and every element in any of those claims.

As amended, independent claim 104 recites a sputtering target comprising Ti and greater than 2% of B, by weight, the Ti being the majority element of the target. The amendment to claim 104 is supported by the specification at, for example, page 14, lines 13-25; page 16, lines 12-28 and page 10, lines 4-13. As acknowledged by the Examiner at page 2 of the present Action, the '955 disclosure specifies a 2% boron content. Accordingly, claim 104 is not anticipated by '955 and is allowable over this reference.

Claims 105-108 and 118 are allowable over '955 for at least the reason that they depend from allowable base claim 104.

Claims 85-103 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 09-025562 ('562). The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 85-103 are allowable over '562 for at least the reason

that the reference does not disclose or suggest each and every limitation in any of those claims or provide a basis for a reasonable expectation of success.

Referring to claim 85, as amended such recites a sputtering target having Zr as the majority element and comprising one or more element selected from Ba, Be, Ca, Ce, Co, Cs, Dy, Er, Fe, Gd, Ho, La, Mn, Mo, Nd, Pr, Sc, Sm, Sr, V, W, and Yb. '562 discloses an alloy target containing 2 or more of Ti, Si, Al, Ta, Nb and Zr. '562 does not disclose or suggest the claim 85 recited Zr based target comprising one or more elements from the recited group. Accordingly, independent claim 85 is not rendered obvious by '562 and is allowable over this reference.

Dependent claim 97 is amended to recite Mg. The amendment to claim 97 is supported by the specification at, for example, page 15, lines 16-20; page 9, line 21 through page 10, line 3; page 11, lines 13-17; page 13, lines 18-21; page 13, lines 24-27 and the claims as originally filed. Dependent claims 86-97 are allowable over '562 for at least the reason that they depend from allowable base claim 85.

Referring to independent claim 98, such recites a sputtering target consisting essentially of a material having a purity of at least 99.95%, by weight, the material comprising Zr and Ti where Zr is present to a concentration of at least 55%. As acknowledged by the Examiner at page 4 of the present action, '562 does not disclose or suggest any purity level of target material. The Examiner indicates, however, that the '562 alloy exists as 100% pure because Figs. 9 and 10 present Zr and Ti amounts which add to 100 at% . Applicant notes that '562 does not disclose any purity analysis or report any target purities. Further, the '562 disclosure does not teach or suggest any method for achieving the claim 98 recited purity. No objective evidence has been shown as to how the

claimed material might have been synthesized. Accordingly, a basis for a reasonable expectation of achieving the claim 98 recited target has not been shown and a *prima facie* case of obviousness has not been established with respect to independent claim 98 (see MPEP §§ 2142 and 2144.04 VII).

Dependent claims 99-103 are not rendered obvious by '562 for at least the reason that they depend from allowable base claim 98.

Claims 85-88, 90-101 and 103 stand provisionally rejected under the judicially-created doctrine of obviousness-type double patenting, as being unpatentable over claims 64 and 66-69 of co-pending Application Serial No. 09/822,037. Applicant submits herewith a Terminal Disclaimer obviating such rejection.

For the reasons discussed above, pending claims 85-108 and 118 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's action.

Respectfully submitted,

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